

# Chorioamnionitis/Intra-Amniotic Infection Syndrome (IAIS)



**DEFINITION:** Infection of the membranes of the placenta and amniotic fluid during pregnancy or intrapartum, most commonly through ascending (retrograde) infection from the lower genital tract (vaginal microorganisms) after membrane rupture. Less commonly occurs through hematogenous route with transplacental passage during maternal systemic infection (e.g. *Listeria*), or iatrogenically. The goals of therapy are to prevent maternal and neonatal sepsis.

**DIAGNOSIS:** Fever ( $\geq 38^{\circ}\text{C}$  oral temperature on 2 occasions at least 30 min apart, or a single temperature  $\geq 39^{\circ}\text{C}$ ) + at least one of:

- Maternal and/or fetal tachycardia ( $> 160/\text{min}$ )
- Maternal leukocytosis ( $\text{WBC} > 15,000/\mu\text{L}$ )
- Uterine tenderness
- Foul-smelling amniotic fluid

**RISK FACTORS:** Pre-term labor, prolonged duration of labor or rupture of membranes (PROM), multiple vaginal examinations. Young age, nulliparity, low socioeconomic status and pre-existing bacterial vaginosis also associated with increased risk.

**ETIOLOGIC AGENTS:** Group B *Streptococcus*, Enterobacteriaceae, genital *Mycoplasma sp*, pathogenic anaerobes (*Bacteroides sp*, *Gardnerella vaginalis*), *Chlamydia trachomatis*

## MICROBIOLOGICAL WORKUP AS INDICATED

- Blood cultures x 2 sets from separate venipuncture sites if patient is hemodynamically unstable - **prior** to starting antibiotics
- Culture of amniotic fluid obtained via amniocentesis (needle aspiration) if possible. Should be sent in a sterile container. Swab of amniotic fluid not an acceptable specimen.
- Cervical swab screen for *C. trachomatis* and *N. gonorrhoeae* (NAAT) if not already screened at 36 weeks

## CLINICAL MANAGEMENT

- Close monitoring for signs of maternal sepsis and continuous electronic fetal monitoring
- Consider differential diagnosis: UTI, pneumonia, appendicitis, colitis, thrombophlebitis, placental abruption, etc. – workup as appropriate
- **Plan for rapid delivery of the fetus and placenta to remove the source of infection**
- Cesarean section only for accepted obstetric indications
- After delivery, send placenta for pathology examination

